

Claims

1. A process for manufacturing paper and board comprising providing a suspension comprising cellulosic fibres and at least a sizing agent, dewatering said suspension thereby forming a paper-web, wherein

5 i) an aromatic-containing cationic vinyl addition polymer is added to the suspension in an amount of from about 0.005 % by weight up to about 1.0 % by weight based on dry pulp, and

ii) an anionic polymer having a weight average molecular weight of up to about 500,000 selected from the group consisting of vinyl addition polymers and condensation polymers is

10 added to the suspension in an amount of from about 0.001 % by weight up to about 3.0 % by weight based on dry pulp,
whereby the aromatic-containing cationic vinyl addition polymer and the anionic polymer are added separately to the suspension.

15 2. A process according to claim 1, wherein the anionic polymer has a weight average molecular weight in the range from about 10,000 up to about 100,000.

3. A process according to claim 2, wherein the weight average molecular weight is in the range from about 15,000 up to about 75,000.

20 4. A process according to claim 1, wherein the anionic polymer comprises aromatic monomers having sulphonate groups.

5. A process according to claim 1, wherein the anionic polymer is a vinyl addition

25 polymer having a weight average molecular weight of up to about 500,000.

6. A process according to claim 5, wherein the anionic vinyl addition polymer comprises aromatic monomers.

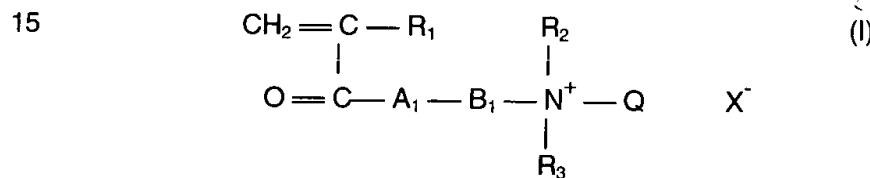
30 7. A process according to claim 6, wherein the aromatic monomers have at least one sulphonate group.

8. A process according to claim 5, wherein the anionic vinyl addition polymer is polystyrene sulphonate.

5 9. A process according to claim 1, wherein the aromatic-containing cationic vinyl addition polymer has a weight average molecular weight of at least about 500,000.

10. A process according to claim 1, wherein the cationic vinyl addition polymer is prepared from a reaction mixture comprising from about 1 up to 99 mole% of a cationic 10 monomer having an aromatic group.

11. A process according to claim 11, wherein the cationic monomer having an aromatic group is represented by formula (I)



wherein R₁ is H or CH₃; R₂ and R₃ are independently from another a hydrogen or an alkyl group having from 1 to 3 carbon atoms; A₁ is O or NH; B₁ is an alkylene group having from 2 to 8 carbon atoms; Q is a substituent containing an aromatic group; and X⁻ is an anionic counterion.

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